

# NHDOT SPR2 PROGRAM

## RESEARCH PROGRESS REPORT

### INSTRUCTIONS:

*Project Managers and/or Principal Investigators should complete a progress report at least every three months during the project duration. Reports are due the 5<sup>th</sup> of the month following the end of the quarter. Please provide a project update even if no work was done during this reporting period.*

Project # 26962R		Report Period Year <input checked="" type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) Q3 (Jul-Sep) Q4 (Oct-Dec)
Project Title: Active Transportation Accounting: A three-pronged approach to developing metrics for project prioritization, monitoring, safety assessment, and evaluation		
Project Investigator: Amy Villamagna Phone: 603-535-2217		E-mail: amvillamagna@plymouth.edu
Project Start Date: 1 Dec 1, 2016	Project End Date: 31 March 31, 2018	Project schedule status: X On schedule <input type="checkbox"/> Ahead of schedule Behind schedule** <i>A no-cost extension has been requested</i>

### Brief Project Description:

This project will leverage *a*) existing datasets (participatory mapping of facility activity through the Strava App), *b*) statewide on-the-ground bike-ped monitoring initiatives (conducted in partnership with the 9 regional planning commissions in NH) (Tufts et al. 2015), *c*) efforts to develop and apply a Level of Traffic Stress (LTS) model for bicycling (MTI Report II-19), and incorporate novel public participatory GIS approaches to assess patterns of current bicycle activity and identify potential barriers to access and participation.

### Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

- Continued LTS model tool revision based on feedback from RAC partners
- LTS model tool user guide has been completed, feedback provided during our quarterly meeting, and revisions underway
- Revised ArcGIS Online webmap application to reflect changes in the LTS models. The goal is to share it with as many people across the state as possible.  
<https://plymouthstate.maps.arcgis.com/apps/webappviewer/index.html?id=633223a8e5b348f09da3873d3c26f62f>
- Development of Arc toolset for analyzing Strava data.

### Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc.):

NA

### Anticipated research next 3 months:

- Finalize GIS tools and User guide for common Strava data analysis
- Finalize GIS tools and User guide for LTS models
- Gather (April –July) and analyze (Sept-Oct) LTS model feedback from web application
- Final report and presentation to NH DOT RAC by Dec 2018

### Circumstances affecting project: Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and budget, along with recommended solutions to those problems.

We took on a new task that was not originally outlined in the project. The webmap app will provide feedback on the LTS model that will enable us to consider large scale or case-by-case calibrations. The research assistant on this portion of the project (Raegan Young) will be graduating in May. Given the data collection will continue through summer, I will

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identify another research assistant in the fall to process and analyze data. Due to this data collection window and my other funded research commitments for May-August 2018, activity on the project will be stalled until Sept. Laura Getts (GIS analyst) has graduated from PSU and is working in Colorado. She continues to contribute to the project as an hourly employee to complete the preparation of GIS Tools for Strava data analysis, the GIS Tools for manual count to Strava comparisons and help prepare the final report and presentation to NH DOT RAC.

Tasks (from Work Plan)	Planned % Complete	Actual % Complete
• Finalize GIS tools for common Strava data analysis	100%	70%
• Finalize GIS tools for manual count - Strava comparisons	100%	90%
• Final report & presentation to NH DOT RAC	100%	0%
• Develop Web application to gather feedback on LTS model *	0%	100%
• Analyze web application feedback*	0%	0%

\* These tasks were not on the original task list for this project, but the RAC deemed it a valuable next step. We have requested a no-cost extension to enable us to complete these tasks before submitting final report.